Medical Progress

How Physicians Can Help Their Patients Quit Smoking
A Practical Guide

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We describe practical, effective, office-based methods for physicians to use to assist patients to stop smoking that do not require special training or support personnel. Brief counseling achieves smoking cessation in a small percent of well patients but is more effective in patients with smoking-related illnesses or abnormal laboratory test results. Routine prescribing of nicotine gum without participation by the patient in a smoking-cessation program does not increase smoking cessation, and we do not recommend it. The prevention of smoking relapse can probably be enhanced by scheduling follow-up office visits after the patient has quit. Failure to quit on initial attempts should not discourage physicians and patients, since most successful abstainers usually must make several attempts to quit. We outline for physicians two approaches, one brief and one more intensive, to help patients stop smoking.

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Smoking is the principal avoidable cause of death in the United States, with an estimated 315,120 lives lost in this country in 1984 due to this habit.[1] Smoking causes increased mortality not only in the elderly but also in the young, as this habit is responsible for 8.1% of all years of potential life lost in the United States in persons less than 65 years old. A 35-year-old man who lives in the United States and smokes 25 or more cigarettes per day has a 15.6% chance of dying from a smoking-related disease before age 65.[2] Among men in the United States, smoking causes 80% of laryngeal and lung cancers, 85% of cases of chronic obstructive lung disease, and a large proportion of several other serious neoplastic, circulatory, digestive, and respiratory conditions.[1] A smoker's habit also exposes nonsmokers to health risks. The US Surgeon General recently concluded that passive smoking causes lung cancer in nonsmokers and more frequent respiratory tract infections and symptoms in children of smoking parents.[3]

Smoking cessation has been shown to lead to declines in the rates of coronary heart disease, chronic obstructive lung disease, and cancer deaths, thereby providing the rationale for physicians to encourage discontinuation of this habit among their patients. Epidemiologic studies of former smokers have shown that after five to nine years of cessation, coronary heart disease deaths and mortality from all causes were 25% and 18% lower, respectively, as compared with rates for current smokers.[4] After 15 years of cessation, the death rate from bronchitis and emphysema among former smokers was 25% to 50% that among current smokers.[5,6] After ten or more years of cessation, the death rate from lung cancer among men who formerly smoked 20 or more cigarettes per day was 20% of that of men currently smoking this amount.[7]

Because many of the adverse effects of smoking are reversible to a large extent, physicians will ensure improved future and possibly present health for patients whom they help quit this habit. Physicians have the potential to reach a large segment of the US population, since it is estimated that about 70% of US residents see a physician yearly.[8] The public health impact of reducing smoking among the 38 million adults in the United States who smoke and see a physician yearly would be enormous, even if only 5% to 10% of these persons quit on a long-term basis because of physician intervention.

Unfortunately, the great potential for physicians to intervene in the smoking cessation process has not been realized. Medical records rarely identify patients as smokers unless a smoking-related diagnosis is present.[9] Less than half of persons seeing a physician in the past year recall any message from the physician about stopping smoking.[10] Physicians seem to concentrate smoking cessation efforts on those patients who already have an illness related to their smoking habit instead of practicing primary prevention on healthy smokers.[11,12] Perhaps this is due to the disease orientation of most practicing physicians.

Although most physicians recognize the importance of smoking as a risk factor for disease, they think that their influence on the smoking habits of their patients is small.[13] The frustration felt by many physicians may stem in part from unrealistic expectations of success. Even intensive smoking cessation programs using a variety of behavioral and pharmacologic approaches rarely obtain more than a 40% long-term quit rate.[14] Physicians' disappointment with the 5% to 10% cessation rates they achieve is inappropriate because those rates extrapolated to the US population would result in several million more ex-smokers each year.

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We present a practical plan for physicians to use to help their patients quit smoking based on our critical review of the current literature. We limited our review of available strategies for cessation to controlled trials of interventions conducted in a practice setting. This criterion led to the exclusion of many smoking cessation methods that had not been subjected to rigorous evaluation using appropriate controls and adequate follow-up. We avoid extensive discussion of methods unsuitable for use in a physician's office or requiring special training, such as aversive conditioning, acupuncture, or hypnosis, and refer interested readers to the review by Schwartz.[14] Instead, we describe those techniques that any physician can use during a busy work day to help patients quit smoking. Many techniques have been reported that meet these criteria, but we have weeded out those of dubious merit. We also provide addresses for free smoking cessation materials and recommend routes of referral should initial efforts fail to achieve the desired end.

TABLE 1.—*Brief Physician Intervention to Achieve Smoking Cessation*

- Identify all smokers
  - Elicit a smoking history
  - Record "tobacco dependence" on the problem list
  - Ask about smoking at each visit
  - Ask smokers if they want to quit and whether they are ready to quit now
- Brief cessation advice
  - Give all smokers a strong message that smoking is harmful to their health and that they should quit now
  - Describe the main risks of smoking; focus on risks that are relevant to current patient complaints rather than long-term dangers
  - Avoid high fear messages; emphasize the positive benefits of cessation
  - Tell all smokers in clear and unambiguous language that they should quit, whether or not they are ready to quit now
- Self-help programs—for patients who are interested in quitting
- Relapse prevention
  - Enlist spousal support
  - Counsel to avoid situations where relapse is likely
  - Boost patient confidence in the ability to quit
- Follow-up contacts—for patients who decide to quit

Physician's Role in Smoking Cessation

A physician's role in counseling patients to quit smoking consists of five components, as described below and briefly outlined in Table 1.

Identifying the Smoking Habit

Physician counseling on stopping smoking begins with the identification of smokers. A survey by Fortmann and colleagues indicated that 90% of physicians in Monterey County, California, asked about smoking in patients with cardiovascular or respiratory symptoms, but only 70% asked routinely.[11] Because any targeted intervention depends on knowing who the smokers are, asking about smoking habits at the initial visit should be a routine procedure. It is important to ask about the duration of smoking, amount smoked, and brand smoked. Those patients who report an inability to quit, the development of withdrawal symptoms, or who persist in smoking despite a tobacco-related medical condition suffer from tobacco dependence.[15] Physicians should make the diagnosis of tobacco dependence in all such smokers. Simply recording that smoking is a health problem in the

TABLE 2.—*Controlled Trials of Physicians' Advice on Smoking Cessation*

Study	Type of Practice	Patients, No.	Interventions	Follow-up, months	Quit Rate, %
Mausner et al, 1968[27]	General	157	None	6	0.0
			Advice		5.0
Russell et al, 1979[18]	General	2,138	None	12	0.3
			Questionnaire		1.6
			Brief advice		3.3
			Advice plus booklet plus follow-up		5.1
Wilson et al, 1982[19]	Family	211	Advice	6-12	12.0
			Advice plus follow-up		23.0
Stewart and Rosser, 1982[20]	Family	691	Questionnaire	12	11.7
			Advice		10.5
			Advice plus booklet		12.8
Russell et al, 1983[21]	General	1,938	None	12	6.0
			Advice		6.4
Jamrozik et al, 1984[22]	General	2,110	None	12	10.6
			Advice plus booklet		15.0
			Advice plus booklet plus carbon monoxide measurement		17.2
			Advice plus booklet plus health visitor		13.2
Fagerstrom, 1984[23]	General	151	Advice plus short follow-up	12	3.0
			Advice plus long follow-up		15.0
Li et al, 1984[24]	Prenatal clinic	1,179	Questionnaire	12	0.9
			Advice		3.7
Richmond and Webster, 1985[25]	General	200	Control	6	3.0
			Advice plus risk factors plus follow-up		33.0
Page et al, 1986[26]	General	227	Control	6	8.1
			Advice		8.9
Janz et al, 1987[28]	General medical	250	Control	6	10.0
			Advice		15.0
			Advice plus booklet		20.0
Thompson et al, 1988[29]	Prepaid health plan	953	Control	9	16.0
			Advice		10.0
			Booklet		10.0

medical record and sharing this fact with the patient has been shown to increase both patients' awareness of smoking as a health problem and patients' six-month cessation rates.[16]

We recommend that a patient's smoking status be placed on the problem list and flow sheet. This facilitates following up on smoking habits and documenting interventions. Cohen and co-workers have shown that medical record reminders about eliciting a smoking history and setting a quit date are effective in increasing the frequency and intensity of physician counseling.[17] As a minimum, all physicians should ask about smoking and other tobacco use at a patient's initial visit, note their findings in the medical record, and share the diagnosis of tobacco dependence with the patient.

Brief Counseling

The efficacy of having physicians give patients a simple message pointing out the hazards of smoking and the benefits of cessation has been studied in a number of controlled trials.[18-29] Table 2 shows that trials of brief counseling conducted in medical practices with at least a six-month follow-up have resulted in quit rates between 3% and 20%.

Tailoring of counseling to a patient's clinical condition appears to magnify the effect of physician intervention. The impact of advice is particularly apparent in a patient with a recent myocardial infarction. Burt and associates found that 63% of patients who had had a myocardial infarction and were given brief advice in hospital remained abstinent for one year compared with only 27% in a control group.[30] Using the patient's clinical condition, such as pregnancy, newly diagnosed obstructive lung disease, or claudication, as a springboard for counseling about cessation will increase the effectiveness of a physician's message.[31-33]

Focusing on cardiovascular risk factors or other measurable effects of smoking in high-risk patients greatly increases the cessation rates seen with physicians' advice.[34-39] Data on these risk factor studies are summarized in Table 3. These trials were not carried out in medical clinics, so one must be hesitant in directly extrapolating the data to physician advice in routine patient visits. One study used a discussion of risk factors in a medical setting. Richmond and Webster[25] used pulmonary function testing and carboxyhemoglobin measurement in addition to advice and found a quit rate similar to that of the risk factor trials shown in Table 3. Collecting risk factor data and discussing the beneficial effects of reducing levels of risk factors appear to more than double the success rates of physician counseling on smoking cessation, resulting in long-term quit rates of 18% to 51%. This increased quit rate must be balanced against the increased effort and expense of a program that includes measuring cardiovascular risk factors or the effects of smoking.

We recommend that physicians use easily available tests to personalize the quit-smoking message. Office spirometers are available in many clinics and are particularly useful in smokers with attacks of winter bronchitis or those with dyspnea on exertion. Doing a spirogram and interpreting the results take about five minutes and often make a major impression by showing reduced forced expiratory volumes in one second (FEV_1) in many otherwise asymptomatic smokers. Many smokers are impressed by a calculation of lung age—the age at which a patient's FEV_1 would be normal.[40] The carboxyhemoglobin test is relatively expensive (about $20) and cannot be generally recommended. Measuring expired carbon monoxide levels provides the same information as measuring carboxyhemoglobin and is a simple, noninvasive test. The instrument that measures expired carbon monoxide—such as MiniCo or Vitalograph—is relatively inexpensive (about $800) and yields abnormal values in almost all smokers, even in younger ones with normal results on pulmonary function tests. Thus, one can discuss a concrete abnormality in all smokers and avoid the "My lungs are OK, so I can keep on smoking" attitude sometimes seen when using spirometry as a counseling aid.

A physician should also use cardiac risk factor data to enhance the smoking cessation message. Smokers at high risk for cardiac disease because of hypercholesterolemia, hypertension, diabetes mellitus, or family history are more likely to experience an adverse cardiac event caused by smoking and thus have more to gain from abstaining than if the overall cardiac risk were low.

Self-Help Programs

Many self-help programs have been developed to assist smokers to quit. A list of these can be found in Figure 1. They have a definite role to play because most smokers would rather quit on their own than attend a cessation class.[28,29] A number of recent studies have found increased quit rates ranging from 7% to 37% among persons given self-help programs.[14,41] The effectiveness of such programs in a practice setting has varied.[42-44] Although the effect of self-help materials alone is small, they are an inexpensive alternative to more complex physician intervention and should be routinely available in offices and clinics.[45]

Relapse Prevention

The key to successful smoking cessation is preventing relapse. Many smoking cessation methods achieve initial quit rates of 70% or more,[46(p472)] but within six months, most quitters have resumed smoking. Personal characteristics, such as low anxiety, good personal adjustment, and a low addictive score,[47] have been identified as factors leading to

TABLE 3.—*Physician Counseling and Smoking Cessation in Cardiovascular Risk Factor Studies*

Study	Site	Patients, No.	Intervention	Quit Rate, %
Rose and Hamilton, 1978[35]	Civil service	1,445	Control	10.0
			Determine risk factors plus advice plus follow-up	51.0
Hjermann, 1980[37]	Community	1,232	Control	17.0
			Intervention	25.0
Cambien et al, 1981[36]	Civil service	3,336	Control	14.3
			Intervention	23.1
Werko, 1979[38]	Community	9,998	Control	26.0
			Intervention	31.0
Kornitzer et al, 1980[34]	Factory	1,468	Control	12.5
			Advice plus determine risk factors	18.7

CESSATION GUIDES

The Physician's Guide: How to Help Your Hypertensive Patients Stop Smoking, NIH Publication 83-1271, 1983

Clinical Opportunities for Smoking Intervention: A Guide for the Busy Physician, NIH Publication 86-2178, 1986

Both available from National Heart Lung and Blood Institute, Smoking Education Program, Building 31, 4A-21, 9000 Rockville Pike, Bethesda, MD 20892

SELF-HELP PROGRAMS

"Quit For Good" Kit, National Cancer Institute, Office of Cancer Communications, Building 31, Room 10A18, Bethesda, MD 20892 or call 1-800-4-CANCER. A cessation program for physicians that includes free materials for 50 patients

"Freedom from Smoking in 20 Days" and "A Lifetime of Freedom from Smoking," American Lung Association, 1740 Broadway, New York, NY 10019—or from your local American Lung Association chapter

"I Quit Kit," American Cancer Society, 4 West 35th St, New York, NY 10001, (212) 736-3030—or from your local American Cancer Society chapter

Figure 1.—Some resource materials for smoking cessation.

prolonged cessation. A physician who is not a psychiatrist can probably do little to help patients achieve these personal characteristics.

Most physicians can, however, profitably direct efforts to creating a social structure supportive of nonsmoking. Successful cigarette abstainers more frequently have spouses who are supportive,[48] who are former smokers, or who quit with them.[49] A physician may therefore promote continuing abstinence if a patient's partner is a nonsmoker by instructing the partner to be supportive of the cessation effort by providing compliments and encouragement instead of nagging or criticism, or, if the patient's partner smokes, by persuading the partner to join in quitting, thereby increasing the chances for mutual prolonged abstinence. Although there is no evidence to our knowledge that banning of smoking in public places and the worksite will help the recent former smoker continue to abstain, we think that this is likely to be the case because opportunities for relapse will be less frequent. Efforts by physicians to restrict smoking in public places and the worksite may further assist in creating an atmosphere supporting nonsmoking.

Certain situations are more likely to lead to relapse, and physicians should work with patients to identify these situations. Schiffman, for example, has identified four typical smoking relapse scenarios: social drinking with tobacco smoke exposure, relaxing at home following a meal, anxious situations at work, and feelings of anxiety or depression while home alone.[50] Coping skills will help patients avoid smoking when placed in a relapse situation. The simplest coping skill—avoiding relapse situations—could easily be recommended by a physician as a strategy for a patient to employ. When avoidance is not possible, more complex coping strategies can be used, but these require intervention by therapists[51] and would not, therefore, be a maneuver that most physicians without special training could personally offer patients.

Physician intervention in altering a patient's self-perception may also assist in avoiding a smoking relapse. A patient's expectation of success has been shown to be predictive of a prolonged abstinence from smoking. Two studies found that a positive expectation of quitting smoking was related to successful long-term abstinence.[47,52] Thus, although no clinical trial has been done on this issue, there is reason to think that a physician boosting the confidence of a patient who desires to quit may lead to a higher rate of prolonged abstinence. A physician should also advise the patient not to feel despair at the chances of quitting smoking if relapse occurs, since long-term quitters on average make more than one serious attempt to quit smoking before they are free of their habit.[53]

In summary, physicians can help to prevent relapse by promoting a social milieu conducive to abstinence, by helping patients to identify and cope with relapse situations, and by fostering confidence of patients in their ability to cease smoking, even if previous attempts at abstaining have failed.

Follow-up Appointments

Active follow-up of patients who are making serious attempts to quit smoking also appears to increase the likelihood of success. Studies that included scheduled appointments after the initial counseling session showed quit rates from 5% to 33%.[18,19,23,25] Physicians should use these follow-up conversations to discuss coping with withdrawal symptoms, preventing relapse, and trying to quit again for those who have relapsed.

Brief physician advice will help 5% to 15% of smokers to quit. This effect can be enhanced by adding the other components of our brief intervention plan (Table 1). If this is unsuccessful, physicians can consider referring the patient to a specialized smoking cessation program. Few patients, however—perhaps 5% of all smokers—will avail themselves of formal cessation programs if they are offered.[29] We do not recommend commercial cessation programs, since few have been adequately evaluated.[14] For interested smokers, the local chapters of the American Lung Association or American Cancer Society will be able to provide information on cessation programs in their area. An alternative to referral is to pursue a more intensive intervention with the patient, as we will describe.

Pharmacologic Treatment of Tobacco Dependence

Given the magnitude of the health effects of smoking, why do people persist in smoking? Nicotine dependence is a major factor. Chronic tobacco use in the form of cigarette smoking fulfills the three criteria for dependence or addiction, namely, pleasure or reward provided by the habit, tolerance to the effects of the habit, and withdrawal symptoms caused by stopping the habit.[54] The withdrawal syndrome is an important obstacle to quitting; most smokers find the greatest difficulty with abstinence immediately following cessation when withdrawal symptoms are most pronounced.[55]

A myriad of symptoms have been observed within a day after quitting smoking, including a craving for cigarettes, irritability, anxiety, difficulty concentrating, restlessness, impatience,[56] coughing, chest tightness, constipation, and mouth sores.[57] Most symptoms decrease in intensity over the first seven days, with only a craving for cigarettes noted after three weeks of abstinence. Those who formerly smoked more than 20 cigarettes per day reported more withdrawal symptoms than did lighter smokers,[57] particularly irritability. Smokers who have made previous attempts to quit only to relapse may expect withdrawal symptoms with future at-

tempts at quitting similar to those experienced with previous episodes of abstinence.[58] If physicians anticipate these symptoms and prepare patients for them, then withdrawal symptoms will be less likely to lead to relapse. For example, constipation commonly occurs after quitting, especially in women, and can be controlled by adding fiber to the diet. Also, patients having difficulty in clearing pulmonary secretions in the first weeks of cessation can be treated with the short-term use of bronchodilators.

Effective drug therapy for tobacco withdrawal following smoking cessation has been sought for many years with little success. Nicotine polacrilex gum is the first agent that has been proved to increase quitting rates in smokers by alleviating many of the symptoms of withdrawal.[59] By blocking withdrawal symptoms, the gum can assist in cessation and the prevention of relapse.

Nicotine Gum in Medical Practice

The effectiveness of nicotine gum has been extensively studied in smoking cessation clinics. When combined with psychological and behavioral counseling, it causes a doubling of the cessation rates, with long-term quit rates ranging from 12% to 70%.[60] Highly dependent smokers tend to benefit from using nicotine gum to a greater degree than do smokers with low or moderate dependency.[61] Another consistent finding is that the longer the gum is used, the higher the quit rate.[62]

Unfortunately, the excellent results with nicotine gum found in smoking cessation programs have not carried over into medical practice settings. There are now eight published controlled studies that have examined nicotine gum use as prescribed by physicians (Table 4),[21,23,26,63-67] of which four showed a significant advantage to using nicotine gum. In several of these studies, nicotine gum was given to all smokers, regardless of motivation, which probably lessened its possible benefit. When the gum is given to all smokers, only 54% actually fill the prescription and only 35% use more than two boxes of the gum.[68] Thus, patient motivation may play a crucial role in nicotine gum's efficacy. Many of the studies were limited by a small sample size and showed only a nonsignificant trend favoring the use of nicotine gum. In addition, the intensity of advice on cessation and instruction on using the gum given to patients varied substantially among the studies.

As might be expected from such varying data, overviews of the effectiveness of nicotine gum in clinical practice have given divergent results. Jamrozik and colleagues[64] and Lam and co-workers[60] thought that the gum was efficacious in smoking cessation clinics, but that there was not enough evidence to recommend its use in general practice. On the other hand, Oster and associates[69] carried out a complex analysis based on an assumption that nicotine gum use could increase cessation rates from 4% to 6% and found the use of nicotine gum to be as cost-effective as the treatment of hypertension. They concluded that the routine use of the gum was justified in general practice. Only two of the six studies using nicotine gum combined with brief advice showed a significant benefit, however, and so we think that routine prescribing of nicotine gum with brief advice will not lead to quit rates much higher than those seen with advice alone.

With much more intensive intervention, nicotine gum can be used successfully by physicians. Tonnesen and colleagues carried out two studies in pulmonary clinics[66,67] in which nicotine gum was used in combination with a series of physician-led group sessions. They found high long-term cessation rates—up to 44%—especially in highly dependent smokers. These results show that nicotine gum can have a major influence on smoking cessation if a physician uses it in the same way it is used in a smoking cessation clinic. To do so, a physician must select only motivated patients, assess the nicotine dependence level, carefully instruct the patient on the use of the gum, use behavioral strategies in addition to the drug, and arrange frequent follow-up visits.

As one can see, patients' successful use of nicotine gum would require a major commitment of time on the part of the physician. It should be reserved for carefully selected patients, and, thus, its use is not feasible in most physicians' practices. If a physician can enlist the help of interested health care providers in the office, such as nurses, then the time commitment would be less of a problem, and nicotine gum use would be a more practical therapy.

Many other drugs, ranging from lobeline to clonidine,

TABLE 4.—*Controlled Trials of Nicotine Gum Use in Medical Practice*

Study	Type of Practice	Patients, No.	Intervention	Quit Rate, %
British Thoracic Society, 1983[63]	Chest clinics	777	2 mg gum	9.8
			Placebo gum	11.4
Fagerstrom, 1984[23]	General	151	2 mg gum	25.0
			No gum	9.0
Russell et al, 1983[21]	General	1,983	Control	3.9
			Advice plus booklet	4.1
			Advice plus 2 mg gum	8.8
Jamrozik et al, 1984[64]	General	200	2 mg gum	10.0
			Placebo gum	8.0
Page et al, 1986[26]	Family	289	Advice	8.9
			No advice	8.1
			Advice plus 2 mg gum	12.0
Shaughnessy et al, 1987[65]	Family	99	2 mg gum	12.2
			2 mg gum plus instruction	10.0
Tonnesen et al, 1988[66]	Chest clinics	172	Control	3.7
			2 mg gum	27.0
			4 mg gum	27.0
Tonnesen et al, 1988[67]	General	173	Placebo gum—low dependence	22.6
			2 mg gum—low dependence	38.3
			2 mg gum—high dependence	12.1
			4 mg gum—high dependence	44.4

have been tested to assist in smoking cessation. None have proved to result in long-term cessation. The use of clonidine[70] is under active study because of its effect in diminishing the craving for cigarettes during cessation, but its use must still be considered investigational until more data are available.

Intensive Practice-Based Intervention

An intensive behavioral program using nicotine gum requires motivation and commitment on the part of physicians and patients. Most studies show that the more effort a physician expends on smoking cessation, the greater the quit rate obtained. Physicians should consider an intensive intervention only after having experience and success with the brief intervention. We describe here an intensive smoking cessation program using nicotine gum that is implemented along with the brief program shown in Table 1.

Identify the Smoking Habit

- Judge the patient's motivation to quit. Ask about previous attempts to quit, withdrawal symptoms, and recent brand switches. A person who has switched from a high-tar to a low-tar cigarette has shown some motivation to change behavior. Ask why the patient wants to quit. Answers that reflect a personal motivation ("I am short of breath") are signs of greater motivation than are those reflecting external pressures ("My wife wants me to quit" or "I know it is bad for my health"). Ask patients how ready they are to quit now and how likely it is that they will succeed. Patients who report they are very ready and who feel they can quit are more likely to do so.[71]
- Assess the level of tobacco dependence. Three questions taken from the Fagerstrom questionnaire[72] can identify a highly dependent smoker: number of cigarettes per day (>25 = high dependence); time to first cigarette (those subjects who smoke within 30 minutes of awakening are likely to be highly dependent); and cigarette brand (high tar and nicotine brands usually point to a high dependence). A highly dependent smoker should be considered for a nicotine gum trial.
- Assess the risk of smoking to the patient. The simplest approach is to test pulmonary function in the office and calculate the lung age. Other possibilities include measuring expired carbon monoxide levels and assessing cardiac risk factors.
- Based on the information from these assessments, divide the patients into groups. In those who are not motivated to quit, ask about smoking at each visit, use teaching moments to reinforce the cessation message, and identify barriers to quitting. At a later date, they may become motivated to quit. In the motivated group, move on to creating a cessation plan.

Create a Behavioral Smoking Cessation Plan

Have the patient set a quit date and keep a smoking diary for several days, listing the time, circumstances, and mood when each cigarette was smoked. Review the smoking diary at the next visit. Identify smoking situations and discuss with the patient some alternative behaviors for those settings. For example, suggest that the patient spend coffee breaks chewing gum with nonsmoking co-workers and avoid smokers during these times. Discuss the patient's previous attempts to quit and anticipate problems of withdrawal and relapse. The patient should be encouraged to use a self-help program.

TABLE 5.—*Instructions on the Proper Use of Nicotine Gum*

Most patients require between 7 and 15 pieces per day
Taper down to 20 cigarettes a day before trying the gum
Do not start to use the gum until you have stopped smoking completely
Do not drink coffee or other beverages immediately before or while chewing the gum
Chew the gum slowly—each piece should last about 30 minutes
Chew until you feel a tingling, then stop; start again when the tingling goes away
Carry the gum with you all the time
Start chewing before you get into a relapse situation
Avoid swallowing the saliva generated by chewing (it contains the nicotine)
Use the gum for at least 3 months before starting to taper
When you first quit, chew at least 1 piece an hour, whether or not you feel withdrawal symptoms

Maintain Abstinence Through Follow-up

Arrange to contact the smoker just after the quit day either in the office or by phone. If the smoker has quit, encourage this and focus on problems of withdrawal and relapse. If he or she did not, try to set another quit date and focus on the problems to be overcome to achieve this goal. Schedule at least one more visit specifically to discuss maintaining abstinence.

Use Nicotine Gum in Motivated, Tobacco-Dependent Patients

Emphasize that patient must quit completely before using the gum. Have a heavy smoker (>40 cigarettes per day) taper down to 20 cigarettes per day before quitting. Give patients a sample of gum and show them how to use it (Table 5).

Conclusions

Many strategies have been developed to promote smoking cessation. Not all of these are feasible for implementation by practicing physicians. The brief intervention strategy we describe can be used by physicians to assist smokers in quitting. It takes only a few minutes and can lead to cessation rates of between 5% and 15%.

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